

Mongolia - Vocational Education - Equipment Upgrades

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Overview

Identification

COUNTRY

Mongolia

EVALUATION TITLE

Vocational Education - Equipment Upgrades

EVALUATION TYPE

Independent Impact Evaluation

ID NUMBER

DDI-MNG-IPA-TVET-2017-v2

Version

VERSION DESCRIPTION

Anonymized dataset for public distribution

Overview

ABSTRACT

Evaluation design

The impact evaluation sought to identify the causal impact of exposure to equipment upgrades on subsequent outcomes. Insofar as we were not able to randomly assign upgraded equipment across schools or trades, we could not estimate the impact of exposure to equipment upgrades directly. However, the gradual rollout of equipment upgrades to TVET schools over time implied that individuals in later cohorts studying trades affected by equipment upgrades were exposed to these upgrades for longer than individuals in earlier cohorts. Taking advantage of this gradual rollout, we proceeded to estimate the impact of exposure to upgraded equipment in three steps: First, we randomly assigned applicants to trades in 10 TVET schools that were generally oversubscribed, receiving more applicants than they could accommodate each year. This enabled us to estimate the causal impact of admission to trades affected by equipment upgrades for the 2010, 2011, and 2012 admission cohorts. Then we compared the impact of admission to trades affected by upgrades on outcomes in earlier and later cohorts to estimate the impact of exposure to upgrades.

The random assignment of applicants to trades in 10 TVET schools also enables us to evaluate the impact of admission to a TVET school which is important for assessing the value of technical and vocational education in Mongolia. Therefore, this evaluation is focused both on the impact of exposure to equipment upgrades and the impact of admission to a TVET school.

Findings

We find that admission to oversubscribed TVET schools leads to significant improvements in employment and earnings, especially for women. These improvements are likely due to the acquisition of more skills in specific trades, greater work intensity, and increased employment opportunities in high-paying sectors. These findings are consistent with the presence of a shortage of vocational students in Mongolia--one of the key assumptions underpinning the choice of the TVET sector as a focus of the Mongolia Compact. Moreover, they suggest that expanding access to TVET schools would have large benefits for prospective students, and for women in particular.

We do not find evidence for positive impacts of exposure to upgraded equipment on employment or earnings. There is also no evidence for impacts on intermediate or other outcomes. Why do we not find positive impacts from exposure to upgraded equipment? One possible explanation is that labor market opportunities for those who studied upgraded or improved trades deteriorated relative to those who studied other trades. Indeed, there is some evidence for a general deterioration of labor market opportunities for individuals admitted to TVET schools in the 2012 cohort. Unfortunately, since we were not able to randomly assign upgraded equipment across schools or trades, we cannot rule out these alternative explanations for the absence of positive impacts. Future evaluations should heed the challenges inherent in research designs that do not rely solely on random assignment.

EVALUATION METHODOLOGY

Randomization

UNITS OF ANALYSIS

Individual

KIND OF DATA

Sample survey data [ssd]

Coverage

GEOGRAPHIC COVERAGE

10 Technical and Vocational Education and Training schools across Mongolia

UNIVERSE

12,000 15-17 year old applicants to 10 oversubscribed TVET schools in urban and peri-urban Mongolia

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Innovations for Poverty Action	

FUNDING

Name	Abbreviation	Role
Millennium Challenge Corporation	MCC	

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Millennium Challenge Corporation	MCC		Review of Metadata
Innovations for Poverty Action	IPA		Independent Evaluator

DATE OF METADATA PRODUCTION

2017-04-17

DDI DOCUMENT VERSION

Version 1.0 (April 2017)

DDI DOCUMENT ID

DDI-MNG-IPA-TVET-2017-v2

MCC Compact and Program

COMPACT OR THRESHOLD

Mongolia Compact

PROGRAM

The overall goal of the Vocational Education and Training (VET) Project was to improve the vocational educational environment in order to meet the demand for skilled labor in Mongolia. MCA-M planned to address this problem by providing students with access to high quality training in modern industrial skills. The VET Project had five main components to meet this goal: 1. Reforms to TVET policy and operational framework activities; 2. Creation of skills standards and competencies system activities; 3. Competency-based training system activities; 4. Career guidance system activities; and 5. Improvement

of learning environment in selected target schools activities. In keeping with MCC's commitment to carefully track the results of its projects, IPA was contracted to design and conduct an impact evaluation of the equipment upgrades provided to the schools as part of the fifth component.

MCC SECTOR

Education (Edu)

PROGRAM LOGIC

The MCA-M VET Project aimed to improve and strengthen the Mongolian educational system to stimulate economic growth and reduce poverty. It pursued this goal by ensuring that students at technical and vocational schools receive training in modern industrial skills to prepare them to meet the labor market demands in key developing industries in Mongolia. The VET Project targets both private and state-owned technical and vocational schools. Some of the project components focused directly on increasing student productivity while others were meant to increase school-level productivity as measured by sustained private-public partnerships and non-governmental funding for the TVET sector. Increases in school-level productivity were meant to increase employability and wages of TVET school graduates as schools produce graduates more suited to the demands of the workplace. Other activities were designed to increase the management capacity of TVET schools, which should improve school management. This improvement, with an increase in partnerships between training institutions and employers as promoted by the National Competitive Grant Program, was intended to increase private funding and eventually lead to sustained private-public partnerships. Development of competency-based curricula standards and training teachers and administrators were meant to improve the quality of instruction at TVET institutions. Improved instruction and improved learning environment-outcomes of equipment upgrades and the modernization of facilities-were intended to enhance the learning outcomes of graduates and make them more suited to the demands of employers. The improved match between the skills of graduates and the needs of employers should in turn increase graduates' employability and wages. The Labor Market Information System and career counseling should reduce the possible mismatch between the skills students acquire and the employment opportunities sought by graduates. The expected key student-level outcomes for the VET project are increases in employment and productivity as measured by their wages.

Sampling

Study Population

12,000 15-17 year old applicants to 10 oversubscribed TVET schools in urban and peri-urban Mongolia

Sampling Procedure

About 12,000 applicants to ten TVET schools across Mongolia. The schools were selected because they had more applicants than places. A series of public admissions lotteries were held for the 2010, 2011 and 2012 applicants at all schools. Admitted students formed the treatment group, rejected students the control group.

Response Rate

12,000 applicants to 10 TVET schools were interviewed during the three baseline data collection cycles. The study's main instrument, the Graduate Follow Up survey, was administered to 10,950 (91 percent) of the original applicants.

Questionnaires

Overview

Students were recruited over three annual cohorts, covering applicants to both 1 year and 2-2.5 year programs. We administered three types of survey instruments to students during the period of study from 2010 and 2015.

1. Admissions surveys: During the application process to TVET schools, students completed an Admissions survey in which they provided demographic information and took a simple aptitude test that IPA developed together with the TVET schools. These surveys were administered in 2010, 2011, and 2012 for their respective cohorts of applicants.

2. Graduate Follow-Up (GFU) surveys: In the year following their expected graduation, each student completed an in-person Graduate Follow-Up (GFU) survey. This was approximately 2 years after admission for students who applied to 1 year programs and 3 years after admission for students who applied for 2-2.5 year programs. This survey collected information on educational and job-related outcomes as well as a written trade-based skills test and further questions about asset ownership, expenditures, and other household activities.

3. Tracking surveys: in years before and after the GFU survey, and up to 2015, students took part in a phone-based Tracking survey to update contact information and to collect basic information on their educational and job-related achievements.

In addition to the student surveys, an Administrative survey was conducted with teachers and administrators at about 50 TVET institutions over three years to capture characteristics such as school size, funding and availability and utilization of equipment. We also surveyed teachers and administrators for their view and perceptions of the VET project. Administrative survey data are used to compare school-level outcomes between evaluation schools and other TVET schools.

Data Collection

Data Collection Dates

Start	End	Cycle
2010-05-01	2010-09-01	Baseline (2010 cohort)
2011-05-01	2011-09-01	Baseline (2011 cohort)
2012-05-01	2012-09-01	Baseline (2012 cohort)
2013-03-01	2013-09-01	Graduate Follow Up (2010 cohort)
2014-03-01	2014-09-01	Graduate Follow Up (2011 cohort)
2015-03-01	2015-09-01	Graduate Follow Up (2012 cohort)
2013-03-01	2013-09-01	Tracking (2011 and 2012 cohorts)
2014-03-01	2014-09-01	Tracking (2010 and 2012 cohorts)
2015-03-01	2015-09-01	Tracking (2010 and 2011 cohorts)
2013-03-01	2013-09-01	Administrative surveys (2013 cycle)
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Data Collectors

Name	Abbreviation	Affiliation
Mongolian Marketing Consulting Group	MMCG	

Data Processing

No content available

Data Appraisal

No content available